REMARKS

Claims 1-29 are pending in this application. Claims 1-3, 6-7, 9-10, and 25 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,327,626 to Schroeder et al (hereinafter "Schroeder"). Claims 22-24 stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over Schroeder in view of U.S. Patent no. 5,937,169 to Connery et al (hereinafter "Connery"). Claims 4-5, 8, 11-21, and 26-29 also stand rejected under 35 U.S.C. § 103(a) as allegedly obvious over Schroeder in view of U.S. Patent No. 6,185,208 to Hanqing Liao (hereinafter "Liao").

Claim Rejection – 35 USC § 102

3. Claims 1-3, 6-7, 9-10, and 25 stand rejected under 35 USC § 102(e) as allegedly anticipated by Schroeder. Applicant respectfully disagrees.

For claim 25, the Examiner asserts that Schroeder discloses an apparatus for reducing message fragmentation between a data source and a data receiver connected by a network comprising a network device connected to the network, wherein said network device changes a maximum segment size (MSS) to a determined MSS used in data transmission between said data source and said data receiver and a storage device connected to said network device for storing said determined MSS for data transmitted between said data source and said data receiver; wherein said network device stores said determined MSS in accordance to data communication between said data source and data receiver.

Applicant respectfully submits that Schroeder relates to spoofing a local TCP protocol stack into thinking a remote station has an MSS value different from its actual value. See, e.g., column 2, lines 33-37. In particular, Schroeder recites that "the mechanism described herein allows a host using the TCP transport protocol to choose the larger of two unequal MSS values

received during MSS negotiation when establishing a connection between two stations...instead of being the smaller of the two." Column 2, lines 53-59. However, Schroeder admits that choosing the **smaller** of two MSS values "allows communications to occur without the need for IP fragmentation, but removes the efficiency and performance advantages provided by interfaces having larger MTUs." Column 1, lines 42-45. Thus, Schroeder relates to methods and devices that operate precisely contrary to methods that reduce message fragmentation, i.e., they enhance message fragmentation. As the instant application teaches, the use of an MSS (and hence MTU) larger than the network's MTU results in a condition where "the message is larger than the particular network MTU," and "[a]s a result, the message is first broken up into message fragments...where each message fragment is compatible with the network MTU." See, e.g., page 2, lines 5-9. Further, "[t]he process of breaking up messages into a number of smaller message fragments is referred to as message fragmentation." See page 2, lines11-12. Schroeder forces the use of larger MSSs than can be handled by the host and thus enhances message fragmentation. Therefore, Schroeder's disclosure teaches directly against instant claim 25, which discloses an apparatus for **reducing** message fragmentation between a data source and a data receiver.

Moreover, Schroeder fails to teach a storage device that, according to the present invention, can "store the determined Maximum Segment Size for various data sources 20, 34 to data receiver 20, 34 connections" and that "for later connections between the particular data service and data receiver, the STE 64 may look up the stored MSS." Page 9, lines 13-17. Such a storage device allows the stored values for a particular connection to be used rather than executing the methods of the invention again with each new connection. Schroeder is silent with respect to any such embodiment. As such, Schroeder fails to teach every element of instant claim 25.

Thus, Schroeder not only lacks all elements of instant claim 25, it teaches directly against the instant claim. Consequently, Schroeder cannot anticipate claim 25, and Applicant respectfully requests that this rejection be withdrawn.

Claim 1 has been amended to recite "the determined maximum segment size reduces message fragmentation," which is the subject matter from now-canceled claim 9. Schroeder fails to teach a method including the step of changing said maximum segment size in an announcement of a first connection to a determined maximum segment size, wherein the determined maximum segment size reduces message fragmentation. On the contrary, as described above, Schroeder not only fails to teach any methods or devices that reduce message fragmentation, it teaches directly against such a goal. Consequently, Schroeder not only lacks all elements of instant claim 1, it teaches directly against the instant claim. Thus, Applicant respectfully requests that this rejection be withdrawn.

Claims 2-3, 6-7 and 9-10 all depend from claim 1. As Schroeder fails to teach all elements of claim 1, it necessarily fails to teach all elements of claims that depend from claim 1. Thus, Schroeder fails to anticipate these claims.

Claim Rejection – 35 USC § 103

5. Claims 22-24 stand rejected under 35 USC § 103 as allegedly obvious over Schroeder, according to the Examiner, "as applied to claims 1-3, 6-7, 9-10 and 25 above," and further in view of Connery. For claim 22, the Examiner asserts that Schroeder teaches a method of reducing message fragmentation between the data source and the data receiver connected by a network comprising the steps of intercepting a first announcement of a first connection between said data source and said data receiver; predicting a determined maximum segment size of said first connection, wherein said determined maximum segment size is placed in a signal; and storing said determined maximum segment size, whereupon said determined maximum segment

size results from a signal response having a maximum transmission unit that is no larger than a maximum transmission unit of said network. The Examiner acknowledges that Schroeder does not teach the step of sending said signal with a no-fragment option set to said data source and said data receiver, but asserts that such is supplied by Connery.

As established above, Schroeder fails to teach the step of storing a determined MSS size as recited in the instant application. As noted above, Schroeder provides no functionality to store determined MSSs for later use in connections between particular data services and data receivers, available by simply looking up the stored MSS. Thus, Schroeder fails to disclose the elements recited by the Examiner. Further, Connery fails to remedy Schroeder's deficiency, so whether Connery discloses the step of sending said signal with a no-fragment option set to said data source and said data receiver is moot.

Furthermore, Schroeder relates to methods and devices that force the use of large MSS values that, in turn, enhance message fragmentation, i.e., it teaches against the present invention. Thus, Schroeder cannot teach "a method of reducing message fragmentation between a source and a receiver" as recited in claim 22. As such, Schroeder's teachings negate any motivation to combine with Connery even if, for the sake of argument, Schroeder did disclose all elements recited by the Examiner.

Claims 23-24 all depend from claim 1. As discussed above, Schroeder fails to teach all elements recited by the Examiner. Thus, the combination of Schroeder and Connery fail to teach every element of claims and consequently fail to render obvious these claims.

6. Claims 4-5, 8, 11-21, and 26-29 stand rejected as allegedly obvious over Schroeder, according to the Examiner, "as applied to claims 1-3, 6-7, 9-10 and 25 above," and further in view of Liao.

Claims 4-5 and 8 depend from claim 1. As established above, Schroeder fails to teach all elements of claim 1 and thus fails to anticipate it. To render claims 4-5 and 8 obvious, Liao must disclose the subject matter of these dependent claims, remedy the deficiencies of Schroeder with respect to claim 1, provide some suggestion or motivation to combine Liao and Schroeder and provide a reasonable expectation of success. At a minimum, Liao fails to remedy the deficiencies of Schroeder established above. As such, the combination fails to teach all elements of claims 4-5 and 8 and consequently fails to render them obvious.

With respect to claim 11, the Examiner asserts that Schroeder teaches a method of reducing message fragmentation for a connection between a data source and a data receiver on a network comprising the steps of resetting said first connection, wherein resetting said first connection initiates a second connection and placing said maximum segment size into an announcement of said second connection. The Examiner acknowledges that Schroeder fails to teach the steps of receiving a first message fragment of a first connection between said data source and said data receiver and storing a maximum segment size of said first message fragment of said first connection, wherein said maximum segment size exists in accordance with said first message fragment, but asserts that such is provided by Liao.

Liao fails to teach the step of storing an MSS. Liao merely states that "once a message has been received, the size of the message is obtained," which Liao then compares to "the maximum packet size for a wireless data network," i.e., MTU. The comparison results in the message being fragmented or not. See column 6, lines 3-23. Nowhere does Liao disclose that MSS values are stored for use in later connections between the particular data services and data receivers as described above. Such a method step allows the stored values for a particular connection to be used rather than needing to execute the methods of the invention again with each new connection. Thus, Liao fails to disclose all elements recited by the Examiner of claim

11. Further, as described above for Schroeder's silence regarding storing MSSs, Schroeder fails to remedy Liao's deficiency. Therefore, whether Schroeder discloses the steps of resetting said first connection, wherein resetting said first connection initiates a second connection and placing said maximum segment size into an announcement of said second connection is moot.

To render claim 11 obvious, Schroeder must remedy the deficiencies of Liao, provide some suggestion or motivation to combine the references and provide a reasonable expectation of success. Schroeder fails at a minimum to remedy the deficiencies of Liao. Furthermore, as mentioned above, Schroeder relates to methods and devices that force the use of large MSS values that, in turn, enhance message fragmentation, i.e., it teaches against the present invention. Thus, Schroeder cannot teach "a method of reducing message fragmentation for a connection between a data source and a data receiver on a network" as recited in claim 11. As such, Schroeder's teachings negate any motivation to combine with Liao even if Liao did disclose all elements recited by the Examiner, which it does not. Thus, the combination of Liao and Schroeder fails to disclose all elements of claim 11 and therefore fails to render obvious the claim.

Claims 12-21 all depend from claim 11. For the foregoing reasons, the combination of Schroeder and Liao fails to teach all elements of the claims and consequently fails to render obvious these claims.

Claims 26-29 all depend from claim 25 (rejected under § 102e). As established above, Schroeder fails to teach all elements of claim 25 and thus fails to anticipate it. To render claims 26-29 obvious, Liao must disclose the subject matter of these dependent claims, remedy the deficiencies of Schroeder with respect to claim 25, provide some suggestion or motivation to combine Liao and Schroeder and provide a reasonable expectation of success. For the foregoing reasons, Liao fails at least the requirement to remedy Schroeder's deficiencies,

namely disclosing the storing an MSS. Thus, the combination of Liao and Schroeder fails to render obvious claims 26-29.

OBJECTIONS

The Examiner has objected to the omission of an "and" prior to the final limitation of claims 22 and 25. Applicant has amended these claims accordingly.

CONCLUSION

Reconsideration of this application is respectfully requested and a favorable determination is earnestly solicited. Further, Applicant submits that the pending claims are in condition for allowance, and issuance of a Notice of Allowance is respectfully requested. The Patent Office is invited to contact the undersigned representative if it is believed that this would be helpful in expediting prosecution of this application.

Respectfully submitted,

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